

CLAIMS

1. A dust cover for a steering shaft for closing a column hole between a steering shaft penetrating the column hole provided on a panel which separates an engine room and a vehicle compartment, and the panel,
5 comprising: a bush made of low frictional material, through which the steering shaft penetrates; a main body of dust seal made of rubber, provided with a plurality of bellows in an axial direction of the steering shaft and arranged between the bush and the panel, for sealing a clearance thereof; and an annular seal lip arranged at least on the engine
10 room side of the bush, in contact with an outer peripheral surface of the steering shaft.

2. The dust cover for a steering shaft according to Claim 1, wherein the main body of dust seal is obtained by integrally forming the plurality
15 of bellows by continuously forming end portions of bellows on each outer periphery side.

3. The dust cover for a steering shaft according to Claim 1, wherein the main body of dust seal is made integral by forming the plurality of
20 bellows separately, fitting end portions thereof on the outer periphery side into an edge of the column hole, and fitting end portions thereof on the inner periphery side into the bush.

4. The dust cover for a steering shaft according to Claim 1, further
25 comprising a fixing member for surrounding end portions of the plurality

of bellows on the inner periphery side, and tightening the end portions on the inner periphery side to fix the plurality of bellows to the bush.

5. The dust cover for a steering shaft according to Claim 4, wherein
5 the fixing member is fixed to the bush by caulking an end portion of the bush on the inner periphery side in a state where the fixing member is fitted in the bush and the end portions of the plurality of bellows on the inner periphery side.

10 6. The dust cover for a steering shaft according to Claim 4, wherein a hook is provided at an end portion of the bush, the hook being elastically deformed in a radial direction to allow the fixing member to pass through the hook when the fixing member is fitted into the end portion of the bush, the hook serving to prevent the fixing member fitted in the bush from
15 coming off with a tip of the hook caught by the end portion of the fixing member after the fixing member is fitted into the bush, and the hook being used for fixing the fixing member by snap locking.

7. The dust cover for a steering shaft according to Claim 4, wherein an
20 edge of the fixing member for pressing the bellows is curled outside.

8. The dust cover for a steering shaft according to Claim 1, wherein the bellows has at least one annular projected portion projecting toward either the engine room side or the vehicle compartment side, and the
25 projected portion being formed of two inclined portions which incline in

an opposite direction to each other with respect to the bush axis between an end portion on an inner periphery side and an end portion on an outer periphery side; and one apex portion formed by a curved surface continuously joining the inclined portions.

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9. The dust cover for a steering shaft according to Claim 8, wherein a portion of an inclined portion of the bellows which is closest to the vehicle compartment side in the vicinity of end portions of the plurality of bellows on the inner periphery side is in contact with a portion of other bellows in an initial state where no external force is exerted.

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10. The dust cover for a steering shaft according to Claim 8, wherein the projected portion projects toward the engine room side, and a curvature of the apex portion of the bellows which is closest to the vehicle compartment side is larger than a curvature of an apex portion of other bellows.

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11. The dust cover for a steering shaft according to Claim 8, wherein an apex portion of the projected portion is formed close to the end portion on the inner periphery side of the bellows or close to the end portion on the outer periphery side of the bellows.

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12. The dust cover for a steering shaft according to Claim 8, wherein a groove having roundness is formed on the end portion on the outer periphery side of the bellows which is close to the engine room side or the

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vehicle compartment side.

13. The dust cover for a steering shaft according to Claim 1, wherein an inner peripheral surface of the bush has a groove for viscous lubricant.

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14. The dust cover for a steering shaft according to Claim 1, wherein an outer peripheral surface of the bush has a stepped portion for preventing the bellows from coming off.

10 15. The dust cover for a steering shaft according to Claim 1, wherein even at an end portion of the bush close to the vehicle compartment, there is arranged an annular seal lip which is in contact with an outer peripheral surface of the steering shaft.

15 16. The dust cover for a steering shaft according to Claim 1, wherein a surface of the main body of dust seal in contact with at least an inner peripheral surface of the column hole comprises a rough surface having a reduced coefficient of friction.

20 17. The dust cover for a steering shaft according to Claim 1, wherein a portion on which at least bellows themselves of the plurality of bellows of the main body of dust seal are capable of coming into contact with each other, or a portion in contact between the same bellows has a rough surface for reducing contact area.

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